

NORTH CAROLINA

Department of Transportation



















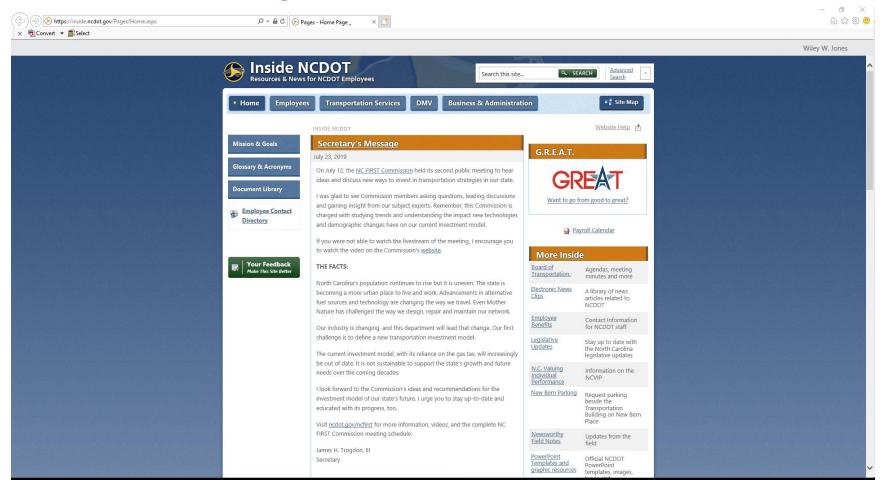
Respirable Crystalline Silica Awareness

August 2019

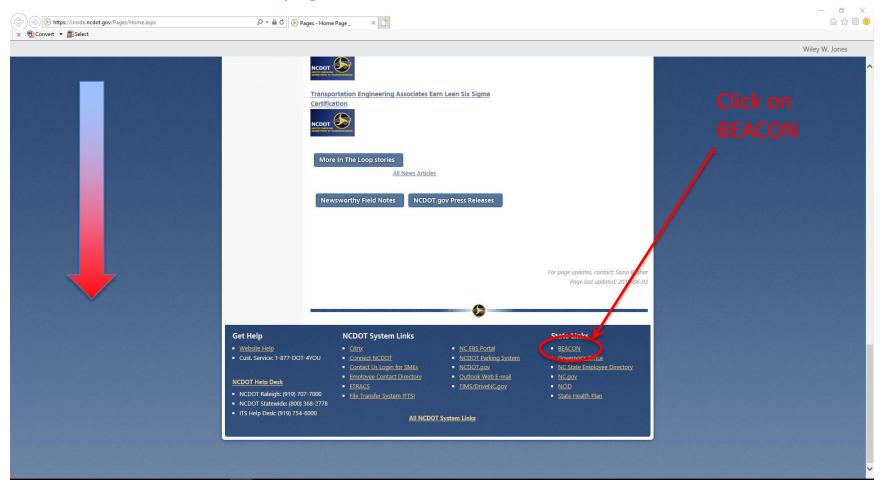
Goals of this Webinar

- Show NCDOT personnel how to access the Silica Awareness Training through LMS
- CEI inspectors will need to have training as well
- Discuss the threat of Respirable Crystalline Silica
- Tips for recognizing Silica Hazards
- How should Contractors/ Subcontractors be protecting themselves
 - Applied vs. Integrated Engineering Controls on Equipment
- Expected Employee response when you recognize a hazardous event on the jobsite
 - Document that you told the exposed employee and their company

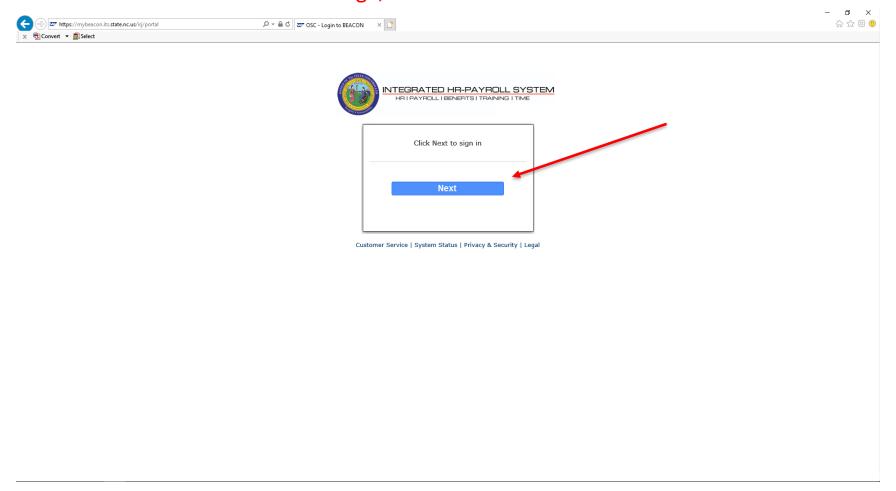
Start at www.inside.ncdot.gov



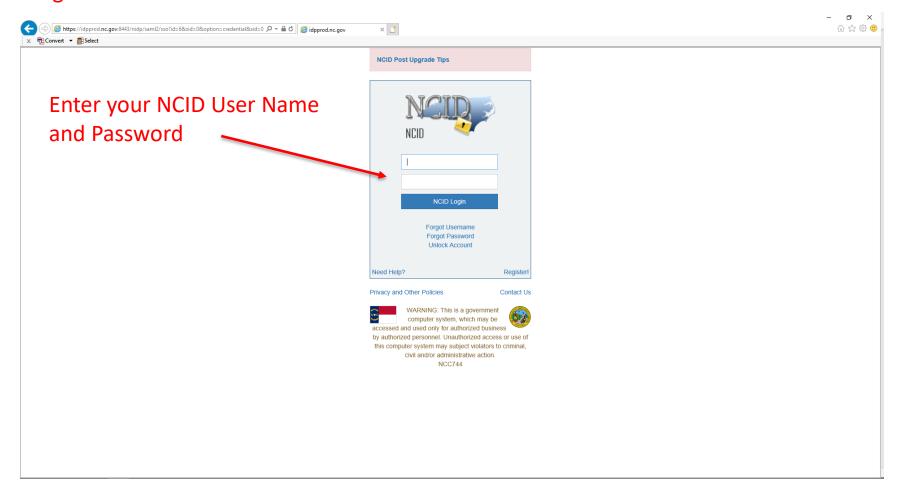
Scroll to the bottom of the page



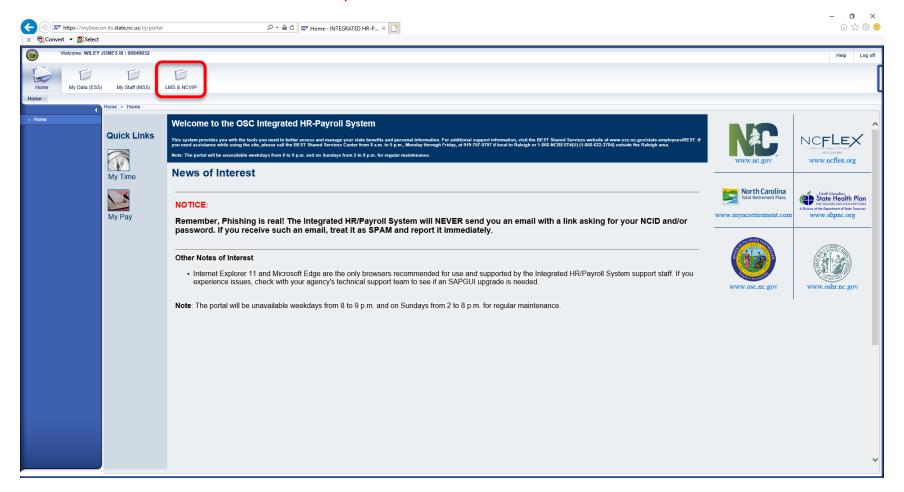
Once on BEACON's Main Portal Page, Click Next



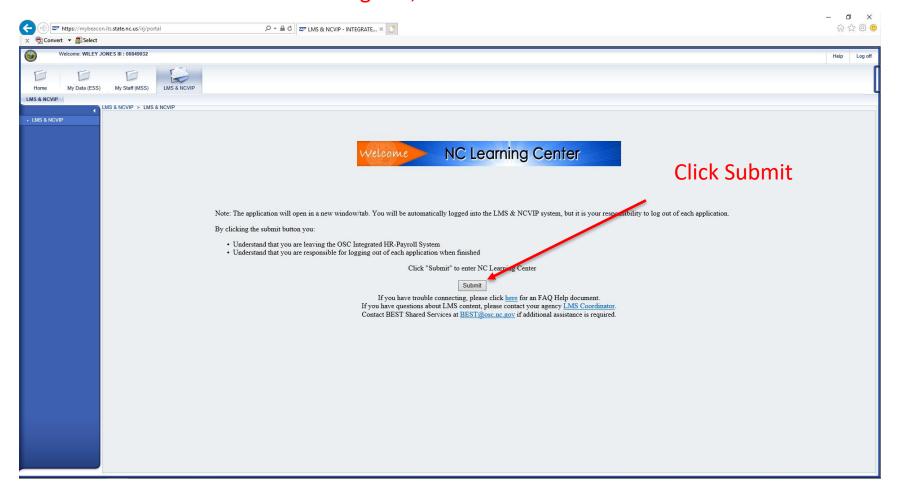
Log In with NCID credentials



At the BEACON Welcome Screen, Click on LMS & NCVIP tab



Once on the LMS & NCVIP Learning Tab, Click Submit



At the NC Learning Center Welcome Screen, Hover your mouse over the Learning Tab

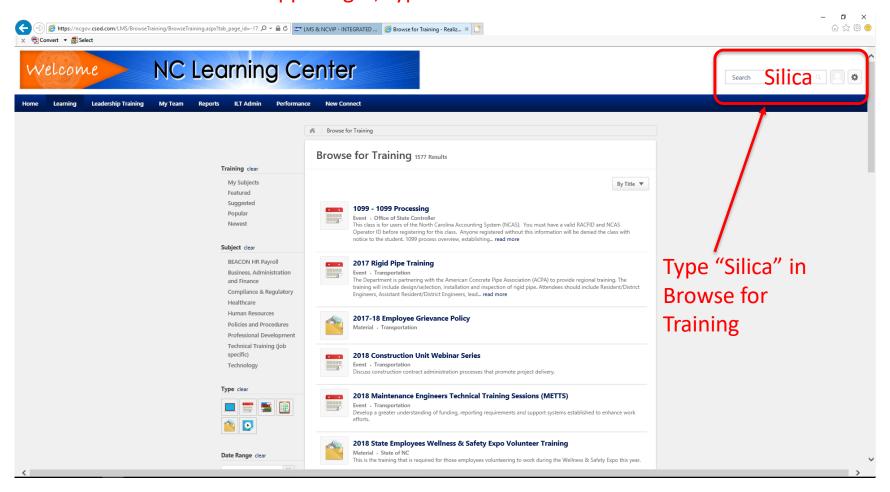


Drag the mouse down to Browse for Training, then Click

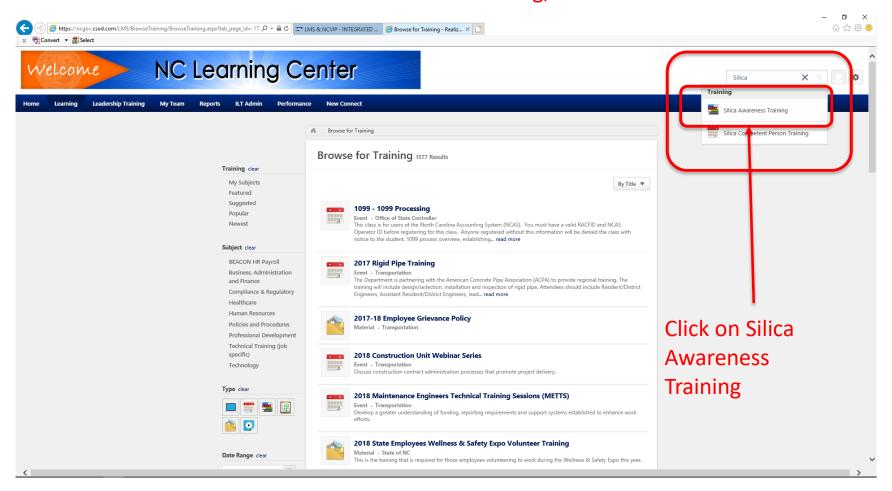


Hover your cursor over "Training" until the dropdown selections appear. Then, hover your cursor over "Browse for Training" and click.

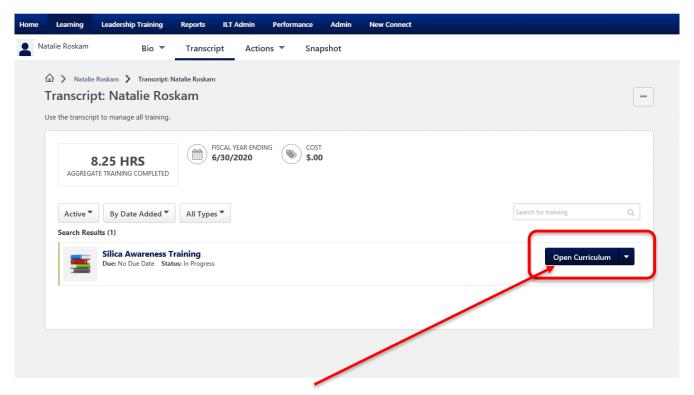
In the Search Box on the upper right, type Silica



Hover the cursor down over Silica Awareness Training, then Click



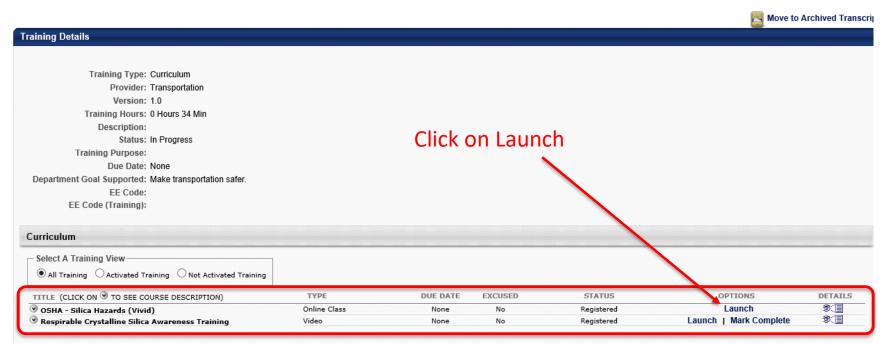
For the Silica Awareness Training - Click on Open Curriculum



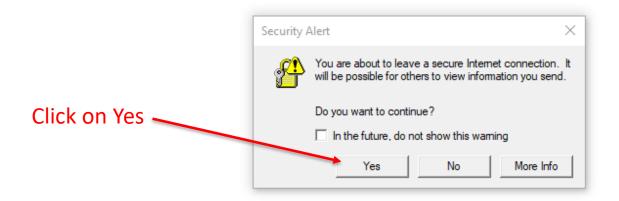
Click on Open Curriculum

Click on Launch for OSHA – Silica Hazards (Vivid)

Silica Awareness Training

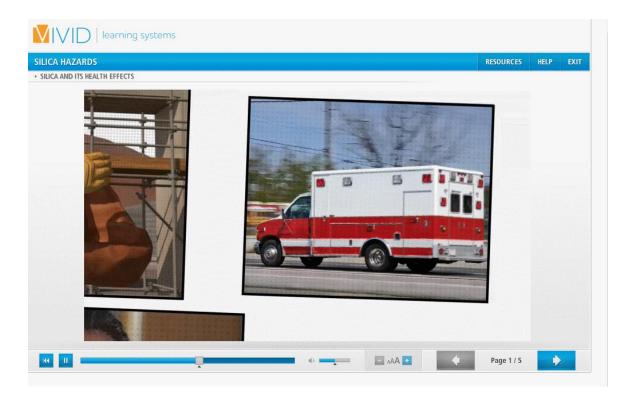


Accept the Security Alert, if it pops up.

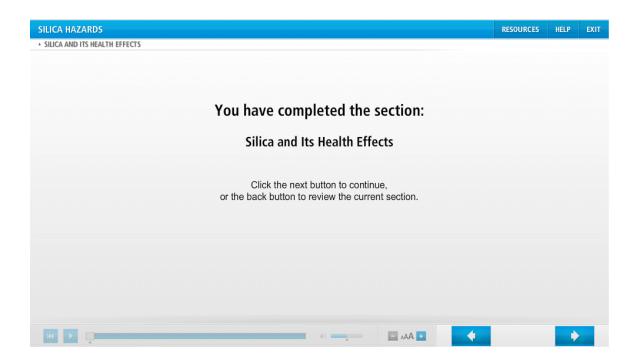


Loading title. One moment please....

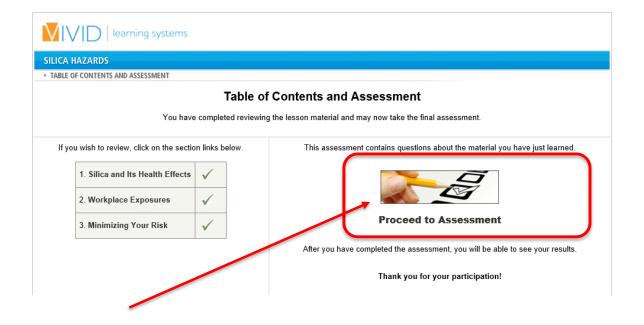
The OSHA – Silica Hazards (Vivid) presentation should start playing, you will need to follow along and answer questions throughout the presentation. There is a short test at the end of the presentation.



Once you have completed the section, there is still one more part to the safety awareness training.

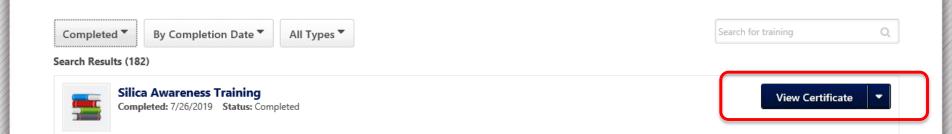


Once you have completed the sections, Proceed to the Test.



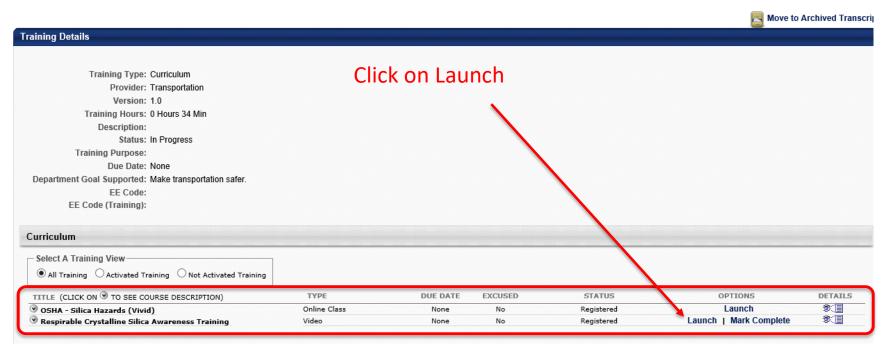
Click on Proceed to Assessment

Hopefully, you will pass the Assessment and will have completed the Silica Awareness Training,

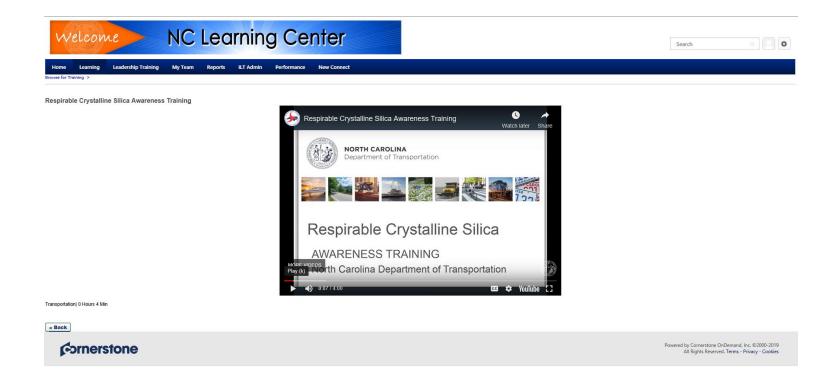


Click on Launch for Respirable Crystalline Silica Awareness Training

Silica Awareness Training



Watch the 4 Minute Training Video



Silica can be found in

- Rock,
- Sand
- Brick
- Stone

 It creates an inhalation hazard when it becomes airborne as a dust!

Silica Exposure Hazards

- The most damaging particle size to the lungs is less than 4 microns, a faction of the size of a human hair.
- Particles of this size may not be easily visible.
- Therefore, even when you don't see visible dust, you may still be exposed.

High Exposure Situations

- Areas of concern for Silica Exposure at NCDOT include:
 - Enclosed Areas
 - High Powered Tools
 - Long Periods of dust exposure

Common Activities at NCDOT where exposure may occur

- Concrete or Asphalt Cutting
- Asphalt Milling
- Jackhammering
- Broom Truck Operation
- Surface Grinding
- Dry grout/ quickrete mixing
- Patching Operations
- Concrete or Asphalt QA testing

This is not an exhaustive list, as exposure can occur with any activity that creates silica dust.

How to we control our exposure?

- Elimination and substitution are preferred means of protection, however for silica these options may not be feasible.
- Implementation of Engineering Controls, administrative controls and personnel protective equipment

Keeping Down the Dust!

The main goal in silica protection is keeping down the dust! This is primarily achieved by

- Water Application
- Ventilation or
- Vacuuming

Visible dust increases the likeliness of the presence of Respirable Crystalline Silica.

Applied vs. Integrated Engineering Controls

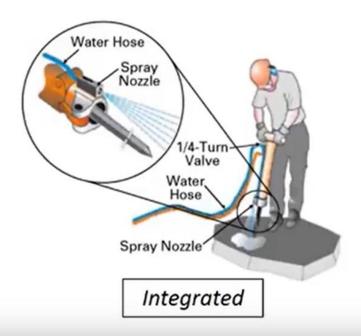
 Applying water to a saw will often reduce the amount of dust generated from the operation

Engineering Controls

Wet methods



Applied

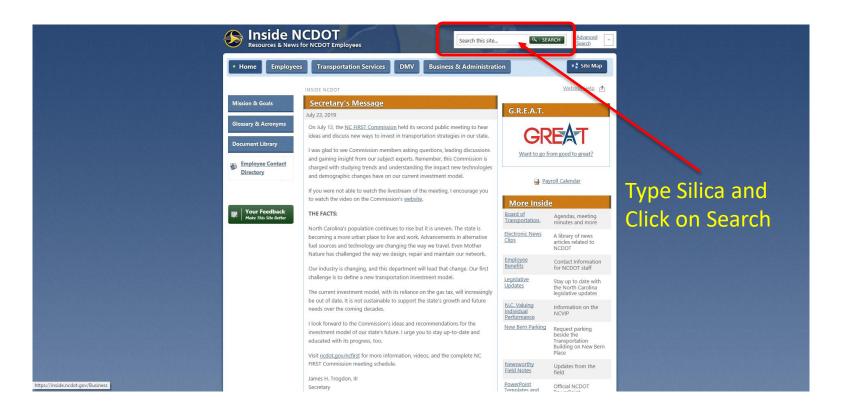


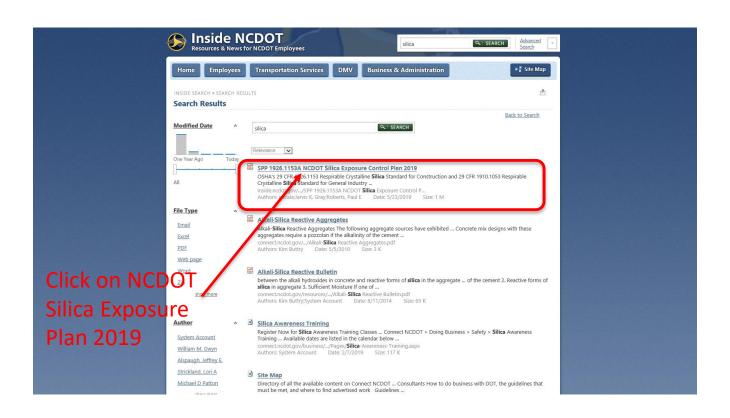
We Should no longer be seeing

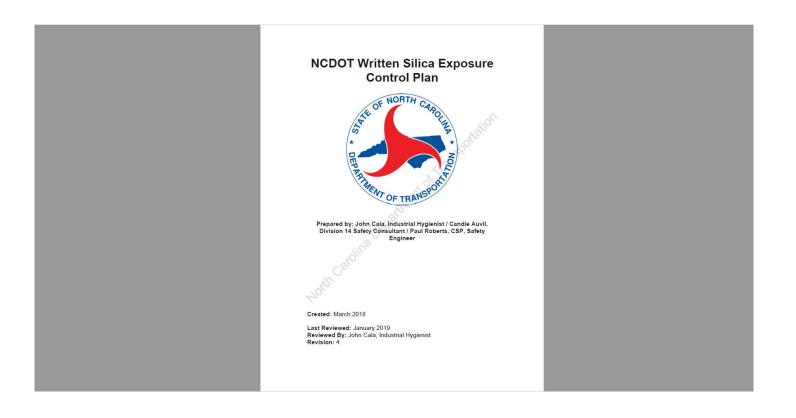
- Visible dust plumes from sawing or grinding operations
 - Concrete Pipe cutting
 - Brick cutting
 - Grinding sidewalk bumps
- Dust plumes are a hazard to our employees and the traveling public.
- Remember the particles that you can't see are the most dangerous to lungs.

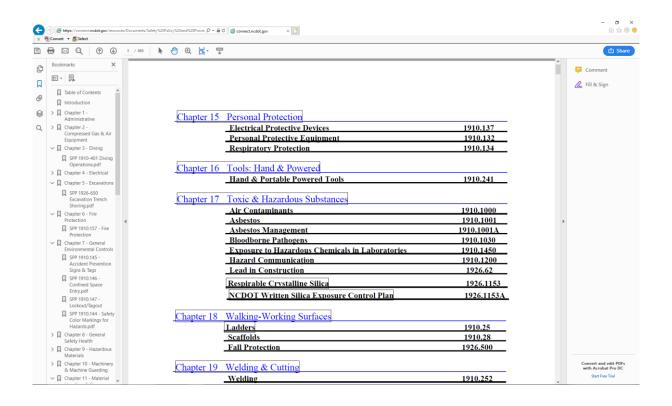
Written Exposure Control Plan

- NCDOT has a comprehensive listing of silica-related activities and required controls.
- All supervisors should be familiar with this document.









What should you do?

- If you recognize a hazard on a worksite
 - Inform the worker they may be at risk and putting others at risk
 - If the operation was being performed by a subcontractor, inform the Prime Contractor of the issue as well
 - Document in the daily diary, who you informed

New Silica Standard

- Organizations will be under scrutiny from regulatory agencies
- NCDOT's goal is to keep employees healthy, protected, and compliant in every activity they perform.

Questions?